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A CASE OF PYRAMIDAL CATARACT.

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In January last, a young man, nineteen years of age, and apparently of a scrofulous diathesis, consulted me in reference to his left eye. I found the lids with evident signs of former inflammation, the conjunctiva being atrophied and replaced to a certain extent, by cartilagenous substance; there was also a tendency to trichiasis, although none of the cilia rested upon the cornea. In the centre of the cornea appeared a small opaque cicatrix; around which was a very narrow circle of extremely delicate and almost perfectly transparent nebulous deposit. From this central opacity ran two superficial vessels upwards to the conjunctiva. The other portions of the cornea were perfectly transparent. The whole capsule of the lens was opaque, as could be seen on dilating the pupil with atropine. The most remarkable feature of the case was the presence of a pyramid or cone of opaque substance, with its base attached to the lens and filling the pupil (when contracted by light), and its apex attached to the central cicatrix, of the cornea.

The base of this cone appeared to be a little less than a line in diameter. The distance from the pupil to the cornea might be possibly about two lines. The two superficial vessels mentioned above seemed to enter the anterior chamber through the cicatrix, and pass along the upper and outer side of the pyramid, into the lens. Whether the dark lines along the side of the cone were vessels, I am unable to decide positively. A single fact, however, which I will soon mention, inclines me to the opinion that they were. There was reason for believing the iris must necessarily be attached to the lens. But on introducing a few drops of solution of sulphate of atropia under the lids, the pupil became *fully and regularly dilated*. The presence of a few minute dark spots on the lens near the base of the cone, resembling detached portions of pigment from the iris, would seem to indicate that there had been slight adhesions, which the ordinary motions of the muscular fibres of the iris had detached.

The patient gave the following history of his case. At the age of three years he was attacked with inflammation of the eyes, which rendered the left eye almost useless and permanently diminished, to a considerable extent, the vision of the right one. The latter, seven years after, was totally destroyed by inflammation. When he was eight years of age, it was discovered that the left eye was affected with cataract. The lids were still somewhat granulated, and the cornea vascular; but they continued to improve in appearance, being subject, however, at intervals, to slight increase of congestion. The patient was considered incurable, and at the age of fourteen was placed for three years in the Michigan Institution for the Education of the Blind. About two years since, the presence of the pyramid connecting the lens and cornea, was observed. How long it had existed was a matter of doubt to physicians who had been able from time to time to examine the eye.

I am disposed to believe that during the first attack of inflammation, a small central ulcer perforated the cornea and caused the escape of the aqueous humor. The iris and lens

were consequently brought in contact with the cornea. As the ulcer healed, a firm union between the cornea and centre of the lens took place, which prevented further escape of the aqueous humor. As the anterior chamber became filled, the iris and lens were restored to their normal position. It can be readily understood, as the lens receded, how the capsule must naturally be put upon the stretch and drawn out into the form of a pyramid. The substance of the pyramid was undoubtedly to a great extent composed of lymph, since, although the central portion of the capsule seemed drawn forward, the pyramid itself seemed to be some foreign body fastened upon the capsule. We believe such an adhesion as above described could seldom occur without involving a portion at least of the pupillary edge of the iris.

As the patient was totally blind, an operation seemed perfectly justifiable, although the condition of the lids and the tendency to congestion from slight causes might possibly increase the danger of subsequent inflammation. At the patient's request, and with the advice of his friend and physician, Dr. Eugene Bitely, of Paw Paw, Michigan, I dilated the pupil widely with atropine and introduced a needle through the sclerotic. After depressing the needle from above downwards between the lens and iris, I carried the point into the anterior chamber nearly to the cornea and easily divided the cone as near its apex as possible. The needle had been passed between the lens and iris without the appearance of a drop of blood. At the moment of the division of the pyramid, however, a minute quantity of blood followed the point of the needle, which fact seems to prove that the superficial vessels of the cornea above mentioned really passed through the cornea into the substance of the pyramid and lens. As the needle was withdrawn, it was pressed through the capsule, when the anterior chamber was filled with a milky fluid and small fragments of the central portions of the cataract. After the operation the pupil was kept dilated with atropine, and

fortunately, in a few days, the congestion produced by the operation partially subsided and the patient returned home.

A couple of weeks since I had an opportunity of examining the eye. The two vessels of the cornea had nearly disappeared; a very small portion of the apex of the pyramid could be seen projecting from the cornea into the anterior chamber. A small fragment of the cataract had fallen to the lower and outer portion of the anterior chamber. As the eye had entirely recovered from the effects of the operation, there seemed to be little reason to fear any harm from the presence of this portion of the capsule, especially as Dr. Bitely informed me it was gradually diminishing in size. The pupil was perfectly clear, and but for the presence of the central opacity of the cornea, the patient would undoubtedly see as well as any one could see, after an operation for cataract.

He was able to read the ordinary large letters on the title pages of books. At a distance of fifty or sixty rods he could distinguish the masts and rigging of vessels lying in the harbor. With the assistance of a double convex lens No. XX, he found distant objects much better defined, although no lens enabled him to read ordinary print. Undoubtedly an operation for artificial pupil or for removing the pupil to one side by iridectomy, would greatly improve vision. As the patient was already so well pleased with the result of the operation, and could conduct himself without difficulty wherever he chose to go, it was thought best to leave the eye for a time in its present condition.

Pyramidal Cataract, especially in the form above described, is a rare form of disease. In the eye clinics of Paris and Vienna, which I attended faithfully for nearly two years, I never observed a case similar in any respect to the one here reported. In my own private practice, with more than fifteen hundred registered cases, I have seen nothing analogous to it. I may, however, with propriety, perhaps, refer to the case of an Irish woman, aged thirty-three years, who consulted me in reference to one of her eyes. In the very centre of the

cornea was an extremely minute white opacity, appearing as if a small particle of carbonate of lead had been involved in the cicatrix of a former ulcer. In the centre of the pupil, also, on the anterior capsule of the lens, was a spot precisely of the same description. The patient could give me no satisfactory account of the case, but informed me that in infancy she suffered from a severe attack of "sore eyes." Probably a perforating ulcer of the cornea caused the evacuation of the anterior chamber, when the centre of the capsule of the lens came in contact with the cornea. A small deposit of lymph was formed upon the capsule of the lens, without producing, however, a firm adhesion. As the ulcer healed, the lens was restored to its natural position, with no trace of disease remaining in the eye, except the minute opaque spot on the lens and cornea.

In this manner, we believe, nearly all the so called central anterior capsular cataracts are formed.

SELECTED.

ON FORCE.

From a Lecture by Prof. TYNDALL, before the Royal Institution.

We all have ideas more or less distinct regarding force; we know in a general way what muscular force means, and each of us would less willingly accept a blow from a pugilist than have his ears boxed by a lady. But these general ideas are not now sufficient for us; we must learn how to express numerically the exact mechanical value of the two blows; this is the first point to be cleared up.

A sphere of lead weighing 1 lb. was suspended at a height of 16 feet above the theatre floor. It was liberated, and fell by gravity. That weight required exactly a second to fall to the earth from that elevation; and the instant before it touched the earth, it had a velocity of 32 feet a second. That is to

say, if at that instant the earth were annihilated, and its attraction annulled, the weight would proceed through space at the uniform velocity of 32 feet a second.

Suppose that instead of being pulled downward by gravity, the weight is cast upward in opposition to the force of gravity, with what velocity must it start from the earth's surface in order to reach a height of 16 feet? With a velocity of 32 feet a second. This velocity imparted to the weight by the human arm, or by any other mechanical means, would carry the weight up to the precise height from which it has fallen.

Now, the lifting of the weight may be regarded as so much mechanical work. I might place a ladder against the wall, and carry the weight up a height of 16 feet; or I might draw it up to this height by means of a string and pulley, or I might suddenly jerk it up to a height of 16 feet. The amount of work done in all these cases, as far as the raising of the weight is concerned, would be absolutely the same. The absolute amount of work done depends solely upon two things: first of all, on the quantity of matter that is lifted; and secondly, on the height to which it is lifted. If you call the quantity or mass of matter m , and the height through which it is lifted h , then the product of m into h , or mh , expresses the amount of work done.

Supposing now, that instead of imparting a velocity of 32 feet a second to the weight we impart twice this speed, or 64 feet a second. To what height will the weight rise? You might be disposed to answer, "To twice the height;" but this would be quite incorrect. Both theory and experiment inform us that the weight would rise to four times the height; instead of twice 16, or 32 feet, it would reach four times 16, or 64 feet. So also, if we treble the starting velocity, the weight would reach nine times the height; if we quadruple the speed at starting, we attain sixteen times the height. Thus, with a velocity of 128 feet a second at starting, the weight would attain an elevation of 256 feet. Supposing we augment the velocity of starting seven times, we should raise the weight to 49 times the height, or to an elevation of 784 feet.

Now the work done—or, as it is sometimes called, the *mechanical effect*—as before explained, is proportional to the height, and as a double velocity gives four times the height, a treble velocity nine times the height, and so on, it is perfectly plain that the mechanical effect increases as the square of the velocity. If the mass of the body be represented by the letter m , and its velocity by v , then the mechanical effect

would be represented by mv^2 . In the case considered, I have supposed the weight to be cast upward, being opposed in its upward flight by the resistance of gravity; but the same holds true if I send the projectile into water, mud, earth, timber, or other resisting material. If, for example, you double the velocity of a cannon-ball, you quadruple its mechanical effect. Hence the importance of augmenting the velocity of a projectile, and hence the philosophy of Sir William Armstrong in using a 50 lb. charge of powder in his recent striking experiments.

The measure then of mechanical effect is the mass of the body multiplied by the square of its velocity.

Now, in firing a ball against a target, the projectile, after collision, is often found hissing hot. Mr. Fairbairn informs me that in the experiments at Shæburyness it is a common thing to see a flash of light, even in broad day, when the ball strikes the target. And if I examine my lead weight after it has fallen from a height I also find it heated. Now, here experiment and reasoning lead us to the remarkable law that the amount of heat generated, like the mechanical effect, is proportional to the product of the mass into the square of the velocity. Double your mass, other things being equal, and you double your amount of heat; double your velocity, other things remaining equal, and you quadruple your amount of heat. Here then we have common mechanical motion destroyed and heat produced. I take this violin bow and draw it across this string. You hear the sound. That sound is due to motion imparted to the air, and to produce that motion a certain portion of the muscular force of my arm must be expended. We may here correctly say, that the mechanical force of my arm is converted into music. And in a similar way we say that the impeded motion of our descending weight, or of the arrested cannon ball, is converted into heat. The mode of motion changes, but it still continues motion; the motion of the mass is converted into a motion of the atoms of the mass; and these small motions communicated to the nerves, produce the sensation which we call heat. We, moreover, know the amount of heat which a given amount of mechanical force can develop. Our lead ball, for example, in falling to the earth, generated a quantity of heat sufficient to raise the temperature of its own mass three-fifths of a Fahrenheit degree. It reached the earth with a velocity of 32 feet a second, and forty times this velocity would be a small one for a rifle bullet; multiplying three-fifths by the square of 40,

we find that the amount of heat developed by a collision with the target would, if wholly concentrated in the lead, raise its temperature 960 degrees. This would be more than sufficient to fuse the lead. In reality, however, the heat developed is divided between the lead and the body against which it strikes; nevertheless, it would be worth while to pay attention to this point and to ascertain whether rifle-bullets do not, under some circumstances, show signs of fusion.

From the motion of sensible masses, by gravity and other means, the speaker passed to the motion of atoms towards each other by chemical affinity. A collodion balloon filled with a mixture of chlorine and hydrogen was hung in the focus of a parabolic mirror, and in the focus of a second mirror 20 ft. distant a strong electric light was suddenly generated; the instant the light fell upon the balloon the atoms within it fell together with explosion, and hydrochloric acid was the result. The burning of charcoal in oxygen was an old experiment, but it had now a significance beyond what it used to have; we now regard the act of combination on the part of the atoms of oxygen and coal exactly as we regard the clashing of a falling weight against the earth. And the heat produced in both cases is referable to a common cause. This glowing diamond, which burns in oxygen as a star of white light, glows and burns in consequence of the falling of atoms of oxygen against it. And could we measure the velocity of the atoms when they clash, and could we find their number and weight, multiplying the mass of each atom by the square of its velocity, and adding all together, we should get a number representing the exact amount of heat developed by the union of the oxygen and carbon.

Thus far, we have regarded the heat developed by the clashing of sensible masses and of atoms. Work is expended in giving motion to these atoms or masses, and heat is developed. But we reverse this process daily, and by the expenditure of heat, execute work. We can raise a weight by heat; and in this agent we possess an enormous store of mechanical power. This pound of coal, which I hold in my hand, produces by its combination with oxygen an amount of heat which, if mechanically applied, would suffice to raise a weight of 100 lbs. to a height of 20 miles above the earth's surface. Conversely, 100 lbs. falling from a height of 20 miles, and striking against the earth, would generate an amount of heat equal to that developed by the combustion of a pound of coal. Wherever work is done by heat, heat disappears. A gun

which fires a ball is less heated than one which fires blank cartridge. The quantity of heat communicated to the boiler of a working steam-engine is greater than could be obtained from the re-condensation of the steam after it had done its work; and the amount of work performed is the exact equivalent of the amount of heat lost. Mr. Smyth informed us in his interesting course, that we dig annually 84 millions of tons of coal from our pits. The amount of mechanical force represented by this quantity of coal seems perfectly fabulous. The combustion of a single pound of coal, supposing it to take place in a minute, would be equivalent to the work of 300 horses; and if we suppose 108 millions of horses working day and night, with unimpaired strength, for a year, their united energies would enable them to perform an amount of work just equivalent to that which the annual produce of our coal-fields would be able to accomplish.

Comparing the energy of the force with which oxygen and carbon unite together, with ordinary gravity the chemical affinity seems almost infinite. But let us give gravity fair play; let us permit it to act throughout its entire range. Place a body at such a distance from the earth that the attraction of the earth is barely sensible, and let it fall to the earth from this distance. It would reach the earth with a final velocity of 36,747 feet in a second; and on collision with the earth the body would generate about twice the amount of heat generated by the combustion of an equal weight of coal. We have stated that by falling through a space of 16 feet our lead bullet would be heated three-fifths of a degree; but a body falling from an infinite distance has already used up 1,299,990 parts out of 1,300,000 of the earth's pulling power, when it has arrived within 16 feet of the surface; on this space only 1,130,000ths of the whole force is exerted.

Let us now turn our thoughts for a moment from the earth towards the sun. The researches of Sir John Herschel and M. Pouillet have informed us of the annual expenditure of the sun as regards heat; and by an easy calculation we ascertain the precise amount of the expenditure which falls to the share of our planet. Out of 2,200 million parts of light and heat the earth receives one. The whole heat emitted by the sun in a minute would be competent to boil 12,000 millions of ice-cold water. How is this enormous loss made good? Whence is the sun's heat derived, and by what means is it maintained? No combustion, no chemical affinity with which we are acquainted would be competent to produce the tem-

perature of the sun's surface. Besides, were the sun a burning body merely, its light and heat would assuredly speedily come to an end. Supposing it to be a solid globe of coal, its combustion would only cover 4,600 years of expenditure. In this short time it would burn itself out. What agency can then produce the temperature and maintain the outlay? We have already regarded the case of a body falling from a great distance towards the earth, and found that the heat generated by its collision, would be twice that produced by the combustion of an equal weight of coal. How much greater must be the heat developed by a body falling towards the sun! The maximum velocity with which a body can strike the earth is about 7 miles in a second; the maximum velocity with which it can strike the sun is 390 miles in a second. And as the heat developed by the collision is proportional to the square of the velocity destroyed, an asteroid falling into the sun with the above velocity would generate about 10,000 times the quantity of heat generated by the combustion of an asteroid of coal of the same weight. Have we any reason to believe that such bodies exist in space, and that they may be raining down upon the sun? The meteorites flashing through the air are small planetary bodies, drawn by the earth's attraction, and entering our atmosphere with planetary velocity. By friction against the air they are raised to incandescence and caused to emit light and heat. At certain seasons of the year they shower down upon us in great numbers. In Boston 240,000 of them were observed in nine hours. There is no reason to suppose that the planetary system is limited to "vast masses of enormous weight;" there is every reason to believe that space is stocked with smaller masses, which obey the same laws as the large ones. That lenticular envelope which surrounds the sun, and which is known to astronomers as the Zodiacal light, is probably a cloud of meteors; and moving as they do in a resisting medium they must continually approach the sun. Falling into it, they would be competent to produce the heat observed, and this would constitute a source from which the annual loss of heat would be made good. The sun, according to this hypothesis, would be continually growing larger; but how much larger? Were our moon to fall into the sun it would develop an amount of heat sufficient to cover one or two years' loss; and were our earth to fall into the sun a century's loss would be made good. Still, our moon and our earth, if distributed over the surface of the sun, would utterly vanish from perception. Indeed,

the quantity of matter competent to produce the necessary effect would, during the range of history, produce no appreciable augmentation in the sun's magnitude. The augmentation in the sun's attractive force would be more appreciable. However this hypothesis may fare as a representant of what is going on in nature, it certainly shows how a sun might be formed and maintained by the application of known thermodynamic principles.

Our earth moves in its orbit with a velocity of 68,040 miles an hour. Were this motion stopped, an amount of heat would be developed sufficient to raise the temperature of a globe of lead of the same size as the earth $384,000^{\circ}$ of the centigrade thermometer. It has been prophesied that "the elements shall melt with fervent heat." The earth's own motion embraces the condition of fulfilment; stop that motion, and the greater part, if not the whole of her mass, would be reduced to vapor. If the earth fell into the sun, the amount of heat developed by the shock would be equal to that developed by the combustion of 6435 earths of solid coal.

There is one other consideration connected with the permanence of our present terrestrial conditions, which is well worthy of our attention. Standing upon one of the London bridges, we observe the current of the Thames reversed, and the water poured upward twice a-day. The water thus moved rubs against the river's bed and sides, and heat is the consequence of this friction. The heat thus generated is in part radiated into space, and then lost, as far as the earth is concerned. What is it that supplies this incessant loss? The earth's rotation. Let us look a little more closely at the matter. Imagine the moon fixed, and the earth turning like a wheel from west to east in its diurnal rotation. Suppose a high mountain on the earth's surface; on approaching the moon's meridian, that mountain is, as it were, laid hold of by the moon, and forms a kind of handle by which the earth is pulled more quickly round. But when the meridian is passed the pull of the moon on the mountain would be in the opposite direction, it now tends to diminish the velocity of rotation as much as it previously augmented it; and thus the action of all fixed bodies on the earth's surface is neutralized. But suppose the mountain to lie always to the east of the moon's meridian, the pull then would be always exerted against the earth's rotation, the velocity of which would be diminished in a degree corresponding to the strength of the pull. The tidal wave occupies this position—it lies always to the east of

the moon's meridian, and thus the waters of the ocean are in part dragged as a brake along the surface of the earth; and as a brake they must diminish the velocity of the earth rotation. The diminution, though inevitable, is, however, too small to make itself felt within the period over which observations on the subject extend. Supposing, then, that we turn a mill by the action of the tide, and produce heat by the friction of the millstones; that heat has an origin totally different from the heat produced by another mill which is turned by a mountain stream. The former is produced at the expense of the earth's rotation; the latter at the expense of the sun's radiation.

The sun, by the act of vaporization lifts mechanically all the moisture of our air. It condenses and falls in the form of rain,—it freezes and falls as snow. In this solid form it is piled upon the Alpine heights, and furnishes materials for the glaciers of the Alps. But the sun again interposes, liberates the solidified liquid, and permits it to roll by gravity to the sea. The mechanical force of every river in the world, as it rolls towards the ocean it draws from the heat of the sun. No streamlet glides to a lower level without having been first lifted to the elevation from which it springs by the mighty power of the sun. The energy of winds is also due entirely to the sun; but there is still another work which he performs, and his connection with which is not so obvious. Trees and vegetables grow upon the earth, and when burned they give rise to heat, and hence to mechanical energy. Whence is this power derived? You see this oxide of iron, produced by the falling together of the atoms of iron and oxygen; here also is a transparent gas which you cannot now see—carbonic acid gas—which is formed by the falling together of carbon and oxygen. These atoms thus in close union resemble our lead weight while resting on the earth; but I can wind up the weight and preserve it for another fall; and to these atoms can be wound up, separated from each other, and thus enabled to repeat the process of combination. In the building of plants carbonic acid is the material from which the carbon of the plant is derived; and the solar beam is the agent which tears the atoms asunder, setting the oxygen free, and allowing the carbon to aggregate in woody fibre. Let the solar rays fall upon a surface of sand; the sand is heated, and finally radiates away as much heat as it receives; let the same beams fall upon a forest, the quantity of heat given back is less than the forest receives, for the energy of a portion of the sun

beams is invested in building up the trees in the manner indicated. Without the sun the reduction of the carbonic acid cannot be effected, and an amount of sunlight is consumed exactly equivalent to the molecular work done. Thus trees are formed; thus the cotton on which Mr. Bazley discoursed last Friday is formed. I ignite this cotton, and it flames; the oxygen again unites with its beloved carbon; but an amount of heat equal to that which you see produced by its combustion was sacrificed by the sun to form that bit of cotton.

But we cannot stop at vegetable life, for this is the source, mediate or immediate, of all animal life. The sun severs the carbon from its oxygen; the animal consumes the vegetable thus formed, and in its arteries a reunion of the severed elements take place, and produce animal heat. Thus, strictly speaking, the process of building a vegetable is one of winding up; the process of building an animal is one of running down. The warmth of our bodies, and every mechanical energy which we exert, trace their lineage directly to the sun. The fight of a pair of pugilists, the motion of an army, or the lifting of his own body up mountain slopes by an Alpine climber, are all cases of mechanical energy drawn from the sun. Not, therefore, in a poetical, but in a purely mechanical sense, are we the children of the sun. Without food we should soon oxidise our own bodies. A man weighing 150 lbs. has 64 lbs. of muscle; but these, when dried, reduce themselves to 15 lbs. During an ordinary day's work, for eighty days, this mass of muscle would be wholly oxidised. Special organs which do more work would be more quickly oxidized: the heart, for example, if entirely unsustained, would be oxidized in about a week. Take the amount of heat due to the direct oxidation of a given amount of food; a less amount of heat is developed by this food in the working animal frame, and the missing quantity is the exact equivalent of the mechanical work which the body accomplishes.

I might extend these considerations; the work, indeed, is done to my hand—but I am warned that I have kept you already too long. To whom, then, are we indebted for the striking generalisations of this evening's discourse? All that I have laid before you is the work of a man, of whom you have scarcely ever heard. All that I have brought before you has been taken from the labors of a German physician, named Mayer. Without external stimulus, and pursuing his profession as town physician in Heilbronn, this man was the first to reduce the conception of the interaction of natural

forces to clearness in his own mind. And yet he is scarcely ever heard of in scientific lectures, and even to scientific men his merits are but partially known. Led by his own beautiful researched, and quite independent of Mayer, Mr. Joule published his first paper on the "Mechanical Value of Heat," in 1843; but in 1842 Mayer had actually calculated the mechanical equivalent of heat from data which a man of rare originality alone could turn to account. From the velocity of sound in air Mayer determined the mechanical equivalent of heat. In 1854 he published his Memoir on "Organic Motion," and applied the mechanical theory of heat in the most fearless and precise manner to vital processes. He also embraced the other natural agents in his chain of conservation. In 1853, Mr. Waterston proposed, independently, the meteoric theory of the sun's heat, and in 1854, Professor William Thomson applied his admirable mathematical powers to the development of the theory; but six years previously the subject had been handled in a masterly manner by Mayer, and all that I have said on this subject has been derived from him. When we consider the circumstances of Mayer's life, and the period at which he wrote, we cannot fail to be struck with astonishment at what he has accomplished. Here was a man of genius working in silence, animated solely by a love of his subject, and arriving at the most important results some time in advance of those whose lives were entirely devoted to Natural Philosophy. It was the accident of bleeding a feverish patient, in Java, in 1840, that led Mayer to speculate on these subjects. He noticed that the venous blood in the tropics was of a much brighter red than in colder latitudes, and his reasoning on this fact led him into the laboratory of natural forces, where he has worked with such signal ability and success. Well, you will desire to know what has become of this man. His mind gave way; he became insane, and he was sent to a lunatic asylum. In a Biographical Dictionary of his country it is stated that he died there; but this is incorrect. He recovered; and, I believe, is at this moment a cultivator of vineyards in Heilbronn.—*Chemical News*.

IODINE: ITS ACTIONS, NORMAL AND ABNORMAL, UPON THE HUMAN BODY.

BEING A REVIEW UPON THIS SUBJECT, MADE BY DRS. SCHNELLER
AND HERMANN, PUBLISHED IN THE OESTRR ZTSCHR.
F. PRAKT. HEILK.

Translated from Canstatt's Jahresbericht.

Dr. Schneller reports the results of his own experience, which lasted over a period of twenty years; in his practice he employed Iodine, its preparations and certain mineral waters containing it,—his conclusions in reference to its effects being the following: (a) The constitutional effects of Iodine, described by Rilliet under the name of iodismus, offers, in its symptoms, which have been accurately described and grouped together by Rillet, some new features, though its general symptoms have long been recognized as consequences of the use of Iodine. (b) Iodismus, or anglicised *iodism*, only occurs in exceedingly rare cases. (c) Medium, as well as very small doses of the argent give rise to iodism more speedily than larger ones. (d) Old, debilitated persons, and those of an irritable habit, who have manifested symptoms of scrofula, seem to possess, for these reasons, a greater susceptibility to Iodine than others. (e) The use of this agent, in persons of the characteristics just mentioned, requires, on this account, more precaution than has hitherto been exercised. (f) The constancy of the occurrence of iodism as set forth by Rilliet, is not so free from doubt, and hence not of so convincing a character as should induce us to use Iodine less frequently than has hitherto been done.

Somewhat in opposition to these views, it is interesting to note the experience of Dr. Jos. Hermann, which bears much analogy to what has been noticed in Paris and London: Hermann's observations led him to adopt the notion of the non-existence of constitutional symptoms resulting from the use of Iodine. He treated annually, in the department of the Vienna Hospital, devoted to cutaneous and syphilitic diseases, about 1,000 patients. His plan of treatment was as follows: In its incipient stage, syphilis was treated merely as a local affection, without any internal medication; the secondary and tertiary forms of this disease—according to Hermann, sequelæ of mercurial treatment,—were treated entirely by the use of iodide of potassium, iodide of sodium, and iodureted cod-liver oil. Also, as external remedies, were employed the various com-

pounds of Iodine, as well as the *tinctura iodini* and iodureted glycerine, no mercurials being used: consequently, since more than one-third of the cases had, at the period of their admission, been affected for some time, and been treated with mercury, there were, annually, from three to four hundred patients treated with Iodine. Under this mode of treatment, the following phenomena were present:

(1.) The most ordinary physiological change which took place in the organism was in regard to the urine. This secretion was increased in quantity, and in case metallic poisoning presents itself, the urine is so changed in quantity that its specific gravity sinks to 1005, and even as low as 1002; its solid contents become less in amount, the urea, sulphates, earthy and alkaline phosphates are reduced to amounts so small as to be scarcely appreciable. At the same time the water and the chlorides are increased to abnormal amounts; in this attenuated urine there exist traces of albumen, carbonate of ammonia, and other unusual agents. The augmented urinary secretion, as well as the qualitative changes which occur in it, that have been mentioned, are the most constant phenomena following the use of Iodine,—they occur in near eighty per cent. of the cases; they continue during a variable period, which is influenced by the person's constitution,—the time varying from ten to fifty days, or even more; the increase in quantity disappears, as soon as the urine returns to its normal constitution again; sometimes, also, the supervention of some other symptom, as perspiration, diarrhœa, salivation, occurring under the form of a crisis, is followed by a diminished flow of urine, and a return to its normal constitution. Under the circumstances mentioned, the presence of albumen in the urine is almost a prognostic sign that mercury may be shown by electrolysis.

(2.) In about ten per cent. of the cases in which mercury had been administered, and to an extent which was detrimental to the system, inducing a class of symptoms to which Hermann gave the title of *hydrargyrosis*, in such cases of syphilis, the administration of Iodine was followed by a profuse secretion of saliva, amounting often to one pound in 24 hours. The salivation thus induced by the use of Iodine is distinguished from mercurial *ptyalism* in this, that in the former case, there is no orritation or ulceration of the mouth or gums, no swelling of the mucus membrane of the oral cavity, and in the majority of cases, no soreness of the salivary glands, and no unpleasant odor from the mouth;—in many

cases, indeed, in which these symptoms had been brought about by the use of mercury, they rapidly disappeared under the use of Iodine. The author, in all such cases, in which salivation has supervened upon the use of Iodine, has found, on examination, that mercury was contained in the saliva, and hence he regards this as positive evidence, that the salivation arose from the mercury, and not from the Iodine.

(3.) In about four per cent. of the cases, there followed the administration of Iodine a profuse perspiration, which did not weaken the patient: the author regards this perspiration as critical in character, since it arose under the exclusive use of Iodine alone, no sudorific having been administered; he conjectures that mercury is present in this cutaneous discharge. As was the fact in the case of the occurrence of salivation, so after the supervention of profuse perspiration, the recovery was rapid and permanent.

(4.) In many cases, after the internal use of Iodine, during a period, varying from 20 to 50 days, there appeared an exanthema of the following characteristics: The original form appeared as small, round, papulæ,—in some cases, instead of the papulæ, small vesicles or pustules were present; these were grouped together in patches, disposed at greater or less intervals, which did not become confluent; this eruption, which was attended by no burning nor itching, ran through its various phases in from five to eight days, and then disappeared, without leaving any scar or discoloration. It either presents itself in isolated portions of the body, as on the face, forehead, breast, abdomen, back, or extremities; or it may occur simultaneously in various parts of the body, or, indeed, the entire surface may be affected with it, including even the scalp itself: the general eruption is not accompanied by a universal reaction, but, for the most part, occurs irregularly, so that, in one portion of the body, it has already vanished, while, in other parts, the eruption still shows itself. The color of the spots, on the margin of the vesicles relatively to that of the pustules, is rose-red, in case the mercurial poisoning has been of small extent or is entirely absent; the tinting becomes of a more intense red hue, or even of a deep copper color, in case there is a high grade of mercurial poisoning. Also, in those instances where the Iodine eruption occurs, in conjunction with some other one, as roseola syphilitica, or with papulæ, pustulæ, or furunculi, which attend mercurial blood-poisoning, then the exanthema, which arises from Iodine,—and which consists of fresh spots or vesicles,—always

appears in the intervening interstices, and again disappears,—while the roseola, the papulæ, &c., run through their various modifications. The occurrence of the eruption from Iodine has neither a pathological nor a prognostic significance, and in nowise indicates that the system is surcharged with Iodine and that the agent should be suspended. This phenomenon comes and goes, even during the constant use of Iodine; it appears and disappears during a protracted use of Iodine.

(5.) The scars of chancres, which have long since arisen, even months or years ago, after the use of Iodine, open again; the scars may actually be seen undergoing disintegration and solution of their texture, and thus to present fresh excoriations and even ulcers; these excoriations or ulcers present a great resemblance to the primary chancre, yet do not generate matter which may be inoculated, or propagated by contact. [I would call special attention to this fact, as it is, no doubt, what has fallen under the observation of every one who has treated syphilitic patients with the compounds of Iodine; six weeks since, such an instance came under my notice, in which, during the use of Iodine, the cicatrix of an old chancre opened, presenting all the characteristics of a primary syphilitic ulcer,—and, what was still more remarkable, a bubo soon followed this pseudo-chancre. From my acquaintance with the patient, I was well convinced that he did not deceive me in regard to this chancre occurring *sponte sua*, as he belonged to that class of men who pride themselves upon the frequency of their venereal attacks—regarding each one as a bright jewel in their life-experience. The bubo, in this case, was caused to disappear by active counter-irritation, without reaching the point of suppuration.—Ed.] The author states that he has seen this event only in the secondary and tertiary forms of syphilis, or, according to his ideas, in the chronic forms of hydrargyrosis. He explains this phenomenon in this wise, that the cicatrices remain dormant so long as the mercurial blood-poisoning is not manifest, or, in case it is manifest, it exhausts its injurious effects in the formation and development of other morbid products;—for example, when it is expended upon the mucous membranes, or upon the glandular or osseous systems. If now the Iodine be given, there arises from the increased activity of the vital process, an augmentation of the *vis medicatrix naturæ*, under the agency of which there is a disappearance of those cicatrices which have arisen under the employment of mercury:—in order, however, to effect this, the unhealthy scars, which have arisen from the use of mer-

cury, must first be broken down by an ulcerative process, which, after the purification of the blood has been completed, heal up and remain radically cured. Phenomena similar to these have been observed by Dr. Englemann and other physicians, after the use of the iodureted water of the mineral waters of Krueznach.

(6.) In a few cases, perhaps two per cent., there arose, under the use of Iodine, a diarrhœa, which lasted several days, or even some weeks; this diarrhœa, though of a very free character, was unattended with much pain or exhaustion of the body; during its continuance, the external manifestations of hydrargyrosis disappeared before the cessation of the use of the medicine, the diarrhœa also ceased; or, in case the remedy was continued, the diarrhœa in nowise assumed a dangerous character. The author regards this intestinal discharge of a critical character, and especially so when it indicates an elimination of mercury.

(7.) In near one per cent. of the cases in which Iodine was given, the patient's body emitted an unpleasant odor; in other cases, there were objective and subjective indications that the agent had been taken, appreciable in the breath and cutaneous transpiration.

The foregoing phenomena presented themselves in the patient in from eight to ninety days, under the administration of the iodide of potassium, in from 10 to 30 grains, given daily; or, of the pure mineral iodine, in doses of 2 grains daily.—*San Francisco Med. Press.*

THE PHYSIOLOGY OF MORMONISM.

By CHARLES C. FURLEY, M. D., Assistant Surgeon
United States Army.

On a recent visit to Salt Lake I had good opportunities for observing and inquiring into the effects of polygamy, as practically exemplified in the case of that people. While sojourning there I mingled much amongst them, visiting them in their homes, and seeing them at their public assemblies and places of business and pleasure; wherefore, I feel qualified to speak of the results of their peculiar institutions, both in their social, physiological and intellectual bearings. It is, however, chiefly as a physiologist that I shall, at present, consider the

subject, and, in this view, I must say, the consequences of the Mormon system, as we find them illustrated in the inhabitants of Salt Lake, are, in every aspect of the case, hurtful and degrading.

A marked physiological inferiority strikes the stranger, from the first, as being one of the characteristics of this people. A certain feebleness and emaciation of person is common amongst every class, age and sex; while the countenances of almost all are stamped with a mingled air of imbecility and brutal ferocity. This, in fact, is their true character; they being obsequious and yielding to their superiors—to strangers sullen and spiteful, while among themselves they are cold and unamiable. In the faces of nearly all, one detects the evidences of conscious degradation, or the bold and defiant look of habitual and hardened sensuality—the women, with but few exceptions, shrinking from the gaze of the stranger, as if fully alive to the false and degraded position they are forced to occupy. Some seem overwhelmed with shame; others wear a forlorn and haggard appearance, while a few put on a cheerful air, affecting to be satisfied with their sad condition.

Without entering into minutiae, I may instance the following as a few of the bodily peculiarities that strike the medical man in mingling with the inhabitants of Salt Lake City: Besides the attenuation mentioned, there is a general lack of color—the cheeks of all being sallow and cadaverous, indicating an absence of good health. The eye is dull and lustreless—the mouth almost invariably coarse and vulgar. In fact, the features—the countenance—the whole face, where the divinity of the man should shine out, is mean and sensual to the point of absolute ugliness. I have nowhere seen anything more pitiful than the faces of the women here, or more disgusting than the entire appearance of the men. It is a singular circumstance that the physiognomical appearance of the children are almost identical. The striking peculiarity of the facial expression—the albuminous types of constitution, the light yellowish hair, the blue eye and the dirty, waxen hue of the skin, indicate plainly the diathesis to which they belong. They are puny and of a scorbutic tendency. The external evidences are numerous that these polygamic children are doomed to an early death—the tendency to phthisis pulmonalis being eminent and noticeable.

The evidences of natural degeneracy are more palpable in the youthful than in the adult population; the evils of this pernicious system not having taken full effect upon the latter.

A more feeble and ill-looking race of children I have not met with, even among the vice and squalor of our larger cities. One looks in vain for those signs of constitutional vigor and sturdy health common to the juvenile portion of what may be considered but a country town. So far as food, climate and other external causes are concerned, the children, as well as the adults here, are favorably circumstanced; their sanitary conditions are generally good; wherefore, we must look to the evils engendered by their religious and social system for the agents of this physical inferiority. In this system, the physiologist and moralist will not fail to detect the ample causes for a decay even so marked and melancholy. That this is not a mere fancy, or the result of prejudice, I may say, the same impression has been made upon all who have ever visited Salt Lake City, and published their opinions on the subject. Indeed, we find, in all the instincts and habits of these people, full confirmation of the physical facts above set forth. They are as gross and vulgar in all their tastes, thoughts and styles of expression as in their bodily appearance. More than half their language is made up of slang phrases, nor do they relish the efforts of their preachers, unless well interlarded with this style of speech. As a consequence, these men indulge freely in the most trivial, and, sometimes, in the most vulgar and blasphemous expressions, to the great delight and mental titillation of their hearers.

The Mormon, with few exceptions, is low-bred and vulgar. Dancing is his favorite amusement—forming, in fact, not only a pastime, but a part of his religious exercises. His conversation is of the most simple and commonplace character. His thoughts never soar above his amusements or domestic affairs. He deals in the gossip and scandal of his neighborhood. The Mormons, of both sexes, are an ill looking set, and when we have said they are frugal, industrious and content, we have enumerated about all the virtues they can claim, or that we can conscientiously concede to that wretched system of degradation known as Mormonism.

Under the polygamic system, the feeble virility of the male and the precocity of the female become notorious. The natural equilibrium of the sexes being disturbed, mischief of this kind must ensue; as a consequence, more than two thirds of the births are females, while the offspring, though numerous, are not long lived, the mortality in infantine life being very much greater than in monogamous society, and were it not for the European immigration, the increase of inhabitants

would be actually less than in Gentile communities. The fecundity of the women is remarkable, as might be expected, considering that the husband cohabits with the wife only at such periods as are most favorable to impregnation.—*San Francisco Med. Press.*

EDITORIAL AND MISCELLANEOUS.

CALOMEL IN THE ARMY.

THE SURGEON-GENERAL'S ORDER.

The recent action of Surgeon-General Hammond, cutting off Calomel and Tartar Emetic from the Army Medical Supply Table, has given rise to a great deal of both professional and unprofessional comment, and an abundance of both pertinent and impertinent remark. The secular press have grown oracular upon it; the medical press, in greater part, have touched the matter gingerly, if at all; whilst one or two have expectorated upon the order their direst wrath. A number of medical gentlemen in this city, numbering about the detailed squad at a major's funeral, in the name of the American Medical Association, (*Quantum mutatus ab illo!*) censured it in language as mild as a skim-milk projectile; whilst an indignant society in one of our sister cities, exhausts the vocabulary of Billingsgate in characterizing it, and only pauses in piling up still darker adjectives from positive exhaustion. All the notes of opposition have been sounded, from the deep-toned base of blackguardism up, through all the gamut of scurrility, to the highest tones of vituperation and invective.

The senseless cachinnation of quackdom, from the rough adherent of Sam. Thomson glorying in his fool's cap and bells, to the dainty and emasculated votary of Hahnemann with his dreary spiritualistic platitudes and shadows, may be passed over as wholly outside of the argument. What they

cackle, or ethereally suspire, weighs not a feather in deciding this question. Great principles depend neither on the wise man's nod, nor the fool's grin. A great action is none the less to be admired because the mob throw up their hats and applaud—it is none the less to be investigated because they condemn it. As Medicine is above popular prejudice, it is also superior to its prepossessions. The questions it discusses are original, independent questions.

We confess that when we first heard of this order, which, by the way, was from the lips of our correspondent of last month, we were not only surprised but disposed to believe it an error in judgment on the part of the Surgeon-General. We are not yet certain that the object sought might not have been secured in a manner less displeasing to the profession at large. It seemed to detract something from that proud professional independence which had always been our boast. Whatever our opinion of the merits or demerits of any particular agent, or whatever the opinion of our patients in the premises, we have always claimed and shall continue to claim the strictly scientific and professional right to use it, or let it alone, in any particular case, or series of cases, which may arise in our practice. What we want in practice is potential agencies—we do not believe in specifics or panaceas, and he who undertakes to crowd them down our throat is as repulsive to us as he who takes away the power which we wish to use. But we waive that point at present.

The readers of this Journal know what our views are with reference to Mercurials, and both they and the students of Rush Medical College know that we recommend their use, under such limitations as have been pointed out by the more exact observations of modern time. Of Tartar Emetic we only say, now, that after observation of its use compared with that of Veratrum Viride, for many years, we give the Antimonial largely the preference—though, truth to say, we use neither as often as in the earlier days of our practice. But if the use of Mercurials and Tartar Emetic is to be the criterion

of orthodoxy—we certainly are orthodox—at least occasionally. With advancing years we confess, with deep contrition, we are getting to depend more and more upon the due regulation of the “*non naturals*,” air and water, food, exercise and sleep, than we do of the cunningest combination of drugs. We are getting to think vastly less of *spanemics* and vastly more of nutrients—much less of *alteratives*, and much more of those things which energise nutrition and directly sustain the failing powers of life.

When under the excitement of the discovery by sundry North-eastern gentlemen of the remarkable powers of Quinine over certain forms of endemic disease, long well known in the West and South, they undertook to make it a panacea and omnipotent prophylactic, and by official order to crowd millions of ounces down the throats of the unhappy soldiery, this Journal urged its indignant protest and almost alone enunciated the true doctrine. Time, and a little experience have cooled the ardor of the apostles of Quinine-prophylaxis, and the excessive use of this most useful article has now shrunk to narrower limits.

The experiment was expensive—the resulting evils prompt in making themselves known. When we urged that better dietetic and general hygienic measures must be adopted to ward off pestilence from the army, they ridiculed the idea, and urged the purchase of more Quinine.

There were “many dry eyes” at the interment of “Quinine-prophylaxis.” There are a multitude more dry eyes as Surgeon-General Hammond musters the mourners at his recent order.

We said we thought at first that the Surgeon-General might have adopted some course less distasteful to the profession. Reflection convinces us that from his point of view he could scarcely have taken any other course than that which he has taken. And this conclusion has been arrived at only after mature consideration.

In the first place the indignation expended on the Surgeon-

General is from a mistaken idea of his position, and, the position of his subordinates on the medical staff.

The Surgeon-General is responsible for the success of his department, for the health and lives of the soldiery, as a commanding general is for the success of the army in the field. He is placed in the position of one who has to accomplish through others that for which he is held to personal accountability, as the private practitioner is for his own methods of treatment. It may be that there are private soldiers better informed and with better judgment than the officers over them—officers also superior in qualifications to their generals and commander-in-chief—but the usages of war and the necessities of discipline require that the private judgment of the inferior, in arbitrary rank, shall be wholly subservient to the superior. And this is not deemed improper or entailing any disgrace to the subordinate. On the contrary, implicit obedience to orders is the highest virtue of the service. The army is a vast machine responsive to a single master hand, and the master is solely responsible.

But this is too clear to need argument. The Surgeon-General is General over his subordinates, and is held responsible for them, and hence has clearly a right to control their official actions according to the dictates of his own judgment, not according to their's, or your's, or mine.

Is a great profession about to denounce one of their number, upon whom such tremendous responsibilities rest, for using or not using this or that agent, whilst each of its members claims the absolute right to use or not to use them as he pleases?

In joining the army, observe, the surgeon has merged his personality in it, and become only a part of the great engine of power. He is only responsible for obedience to the order which comes down to him, whereas the Surgeon-General is responsible as an individual, and has the rights of an individual to employ or not to employ, by himself or his agents, whatever he in his best judgment thinks best.

But it is said he has based his action upon false premises,

and therefore is censurable. His primary expressed reason for the removal of Calomel and Tartar Emetic from the Supply Table is, that they have been abused in use and that the consequences have been disastrous—a statement which the Chicago meeting insinuated to be unproved, and the Cincinnati brotherhood roundly asserted to be libelous. Here is a simple question of fact, and by the record only is it to be proved or disproved. Where is the record? In the hands of the Surgeon-General. On the one side stands the official record—vouched for by a professional gentleman of high distinction, thoroughly versed in the scientific methods of observation and analysis of the present age; a man against whose personal integrity his bitterest official enemy dare not breathe a whisper, and who has responsibilities piled upon him beyond any which the world has ever known, (for we repeat what we have elsewhere said, that his position is infinitely more important than that of any mere general in the field), and on the other side we have but the irresponsible *say-so* of individuals of perhaps private civil eminence, and the prejudices and prepossessions of persons of limited view who fancy that the removal of a couple of agents from the medical *armamentaria*, is about to break down all divisions between scientific and pseudo-medicine and bring the quack on the level with educated physicians.

If any one knows the truth of this premiss, we insist, it is the Surgeon-General, and we are bound as honorable members of the profession to accept his statement to be true until, by evidence fully as authoritative as that which he claims to have in his bureau, the opposite is made to appear.

We apprehend that no educated physician will assume that his second statement, viz: that the advance of modern pathology has narrowed the range of useful application of the two mooted agents, is at all questionable.

For example, the old idea of Calomel was that it is an "antiphlogistic," hence applicable in all febrile and inflammatory affections—all educated medical men now know that

it is not an antiphlogistic, but rather a *stimulant*, rapidly disintegrating the tissue, exhausting by excessive cell and molecular change.

True, by its primary action as a cathartic it may prove antiphlogistic, but every repetition of the dose develops more and more the stimulating i. e. tissue-disintegrating effect.

Why not then, it may be asked, use it as a stimulant? Because it rapidly exhausts without replacing tissue. That stimulant is always to be chosen which is adjuvant to increased nutrition; a part, or the whole, of which is capable of entering into and forming a portion of the organism.

But we do not propose to discuss the action and uses of Calomel. Practicing upon our own responsibility we use it when we choose, and shall continue to do so, because no one else is responsible. If we had voluntarily placed ourselves where some one else was responsible, we should either conform to his directions or resign. There is not a surgeon in the army who will permit his assistants, or the Hospital Steward, to use what he has directed not to be used.

Now if the Surgeon-General honestly entertains the views he has laid down in his circular, with regard to the abuses prevailing in the employment of the articles named, and the present restricted range of its application all admit, we submit that he has a clear and indefeasible right, nay it was his duty, to issue such an order, and the attempt to ostracize him from the profession in any quarter will recoil upon the projectors. It is an abandonment of the grand principles of toleration, which are the true glory of our profession.

Is there "a divinity which doth hedge around" these two remedies, that renders it indispensable for them to be placed upon the Supply Table? We have heard it said boastingly that at least two grand divisions of the army have enough of each on hand to last for two years—a fact probably as well known to the Surgeon-General as to those who boast of it. If, as is claimed, he proposed by the order to entirely "suppress" the use of them, why did he not couple with the

notice of striking from the supply table, an order that the amount on hand should be returned at once to the Medical Purveyors of the different districts? Or why did he leave the matter remotely inferential, and not directly order that no more should be used? If he was actuated, as some claim, by an affiliation with the "Eclectics," and a leaning towards Homœopathy, why did he not strike off all the Mercurials, Arsenic, Iron, Iodide of Potassium, &c., at one fell swoop? Blue Mass, Corrosive Sublimate, the Iodides of Mercury, &c., all still remain. Does not this prove, if further proof were wanting, (which is not,) that this is not a mere senseless concession to "Anti-Mineral" knaves and fools, but a conscientious effort to remedy a great evil—wide spread, yet entrenched in prejudices and wrapped about with a cloud of "authorities?" Practically who does not know that it is by far too common a practice to give Calomel as a *placebo*—to give it when in doubt as to correct treatment—for whatever the disease may turn out to be, in digging among the fossil strata of the libraries, one can always find "authority" for its use. As a genial professional brother at our elbow suggests, some give it as the gamesters say is their rule—*when in doubt they play trumps*. Humiliating as this may be to the pride of the educated, thinking physician, "it's true, 'tis pity, and pity 'tis, 'tis true."

Again, this is merely a local and temporary regulation. The Surgeon-General knows, as we all know, and even Cincinnati, insane upon the subject of Calomel as it is, admits it,—that the vast majority of diseases prevalent in the army utterly forbid the use of Calomel and Tartar Emetic. They are either Scorbutic, Typhoid or "Malarious" in their type—one or more, requiring restorative, tonic, stimulant and nutritive methods, and not these potent agents. The exceptions to this rule are few and far between.

A vast number of the army surgeons are young men not as yet grounded in practice, guided mainly by their text books; another large class are men advanced in years, wedded

to their particular notions, many of which are dogmas of the most baseless sort. Besides these we admit the presence in the army of very many both young and old, fully up to the times—sound physiologists, thorough students of hygiene, and *therefore* good practitioners. The latter class did not need this order—for the first two classes it was indispensable. But an army order must be general in its terms—it must be public in its issue.

It has been said that the first two classes, if not competent to administer these drugs with discretion, should have been discharged from the service, thus cutting the gordian knot of the difficulty. To those little familiar with the subject this would seem easy enough, but a mere trifle of thought will show its fallacy. The army surgeon has rights as well as duties. In the first place a court martial would be required in each case, else gross injustice might be done to individuals—and these courts-martial would necessarily, from the number and the important questions involved, be beset with infinite difficulties, besides taking away from their active duties medical officers who could not be spared from the service.

Or if they could be spared, how could charges be brought? Shall the production of a salivation be cause of dismissal, or collapse from the use of the Antimonial? How readily will the surgeon show that he used neither agent in inordinate doses, or with unwarrantable (text book and civil practice) continuance. And besides these surgeons are, perhaps, beyond reproach in every other respect—invaluable to the service. Are other military officers dismissed the service because they do not comply with orders never issued? In other branches of the service, we take it, when an evil exists the evil is corrected by a special order, and if the order is not obeyed then the offender is appropriately disciplined.

Can you order a surgeon not to salivate a soldier to whom he gives Calomel? The absurdity of the proposition is sufficient answer. But in this age of the world are we to be told that striking Calomel and Tartar Emetic from the Army

Supply Table leaves the surgeon so powerless that it is his duty rather to resign than to submit? We have yet to learn that the physician's duty, either in whole or even in greater part, consists in the administration of drugs. We believe with Cabanis, that there would still remain an art of medicine, invaluable to the world, were all, so called, medicines prohibited. It is the glory of our science that as it advances step by step, it becomes more powerful when applied to practice to palliate and remove disease by removing causes and changing conditions—placing the patient, briefly in normal physiological relations. It is the crowning triumph of the art, when the physician restores the patient to health, employing only those forces and those materials wherewith the Grand Architect builds up the human body.

Such extreme tenderness and sensibility, as is manifested in some quarters at the dropping of Calomel and Tartar emetic from the supply table seem to us to indicate on their part a want of confidence in medicine as a science, and goes far to bolster up the quacks of every hue in their anathemas of "regular" practice as mainly consisting in the exhibition of these two agents. As for us we have that degree of confidence in medical science as a whole, that if we were cut off entirely from the use of these articles we could still practice medicine with confidence and zeal. Why should these two bestride the medical world like the legs of a colossus? It is to be feared that too many yet carry them as Sinbad carried the Old Man of the Sea. We should be the masters and not the slaves of medicines, whatever their potency.

If the army was now engaged in a war under such conditions that alcoholic stimulants were found highly prejudicial, would it be unprofessional or "an insult to the profession" to order them dropped from the supply table?

As for ourselves, for instance, if we were the Surgeon General and we found that the surgeons were adopting the treatment recommended by Dr. Todd for fevers and phlogoses, we should be tempted to drop alcohol from the supply table.

And when we knew of the wretched results of the quinine madnia, before alluded to, we feared that an order on that subject might become necessary.

But Alcoholism and Quininism in their results are so open and palpable, that the merest modicum of good sense speedily corrects the practice of even the most bigoted dogmatist. The articles now stricken out are more dangerous, in the irregular life of the soldier, because the immediate results are less open and less palpable. As a matter of fact, it is perhaps safe to say, more salivations occur outside the camp hospitals than within them, for within the patient is protected from exposure and his own carelessness.

But suppose the Surgeon-General had, as some suggest would have been the better course, issued a circular cautioning his subordinates against the injudicious use of these agents, would there have been a particle less of sensation created, or less opposition begotten than is now present? Would not the quacks equally have gloried in it? It is our firm conviction that it would have been wholly unnoticed and disregarded by those to whom it was addressed. But now when called upon to face the fact that sooner or later they must face an empty Calomel bottle, and the extraordinary nature of the order itself, combine to bring the surgeon (as it should the civil practitioner) to reflect whether there may not be after all methods of cure superior to the Calomel and Tartar Emetic one to which he has been accustomed. He only needs to investigate, and he will find that the methods of treatment have advanced a wonderful distance from the Calomel and Tartar Emetic base of operations.

We know to day in this city excellent professional gentlemen who if they could be induced to leave out Calomel and its congeners from their practice for a few months, could scarcely be persuaded to take them up again, even in cases which positively demand their use.

Largely in this city, but beyond all in Cincinnati, are the deplorable results of the belief that Calomel is the central gun

around which the whole word of medicine revolves, to be observed in most startling development.

The attempt at creating an excitement over this subject, will not advance the regular profession the dimension of a hair in popular repute, but will only confirm the vulgar opinion that Calomel is all there is of it. Vehement invectives will only convince that "it is the wounded bird that flutters."

How much better for the profession to plant itself, as it triumphantly can, upon the proud position that it is independent of special remedies, panaceas and specifics—that it can dispense with the use of a multitude such, and yet be itself indispensable and inestimable to the race.

Let the medical societies and associations confine their attention to the legitimate business of bringing out the facts, and developing the principles of medical science, and no more engage in the pitiful work of acting as star chambers consigning rebellious individuals to the rack, the guillotine and oblivion.

The attempt so far as Surgeon-General Hammond is concerned will fail—nay, it has already failed. Still young, energetic, far seeing, sagacious, independent and bold, he will carry the medical corps of the grand army which he has organized from chaos, and vivified from imbecility, not only through the trying ordeal of this unhappy war, but surround it with such a prestige and renown, that the whole profession will acknowledge the grand impulse which has been given them by one live, wise, earnest, discreet and PROGRESSIVE MAN.

Spina Bifida.—Mr. T. SMITH reported to the Pathological Society of London the removal of the Sac of Spina Bifida by operation. It was isolated from the spinal canal by a clamp. On the nineteenth day it was punctured. The clamp was screwed up close, the tumor was shaved off, and the edges touched with heated wire.

Bobus. We think it was Dr. Johnson who querulously retorted to one of his listeners, who was pestering him for explanations, that although he felt bound to furnish men *ideas*, he was *not* bound to furnish them *brains*. We were reminded of this the other day when a professional friend remarked to us that the following paragraphs in our last No. needed explanation :

"Our readers will bear us witness, that from the hour Nurse Yates sent a communication to the *Chicago Tribune*, calling upon the benevolent for a donation of rags to absorb the abominable flux from the salivation of the soldiery at Cairo, we have ever opposed this infernal practice in the army.

In our place in Rush Medical College, as teacher of the Practice of Medicine (and we know the Professor of Surgery has done the same), we have inculcated principles wholly at war with this prostitution and abuse of these energetic remedies."

Our friend tells us that some parties really seem to think that by these words levelled against "this infernal practice in the army" we deliberately denounce all *use* of Calomel in practice, where the infernal salivation is not produced! And again that "having inculcated principles wholly at war with *this prostitution and abuse* of these energetic agents" therefore our teachings in Rush Medical College are necessarily against their use in all cases whatsoever!

All we have to say to Bobus is, that he has revealed to us a depth of stupidity which we had not yet sounded. We commend you, Bobus, to your dictionary and some moderate study of the vernacular.

Machiavel says there are three degrees of capacity: "One man understands of himself, another understands what is explained; a third understands neither by himself, nor by any explanation; the first is excellent, the second commendable, the third altogether unprofitable."

We believe that Bobus belongs to the third class, and there we leave him. God help you, poor Bobus!

Humors of the Craft. A case of *Purpura haemorrhagica* is sent up to our table wherein the "M. D." advised and applied a string around the little finger and a string around the little toe of the sinister extremities to "suppress" epistaxis. No other treatment was suggested.—A Brigade Surgeon—"home from the wars"—and a proud evidence of the fact that homoeopathists can get into the grand army, (as the "secesh" do, in stolen uniforms,) to our own knowledge, a few days since was treating, what he asserted to be, a transverse fracture of the patella by fixing the leg in one of Day's double inclined planes.—Another who wished to rectify the deformity of a badly united leg, was lastly seen soaking the unhappy extremity in a tub of water "to take out the stiffening, so he could bend it into its place."—Cincinnati is in an uproar unequalled since the days of the Ephesians. The brethren verily believe their craft is in danger, because Surgeon-General Hammond refuses to pay for any more Calomel or Antimony for "our common Uncle's" soldiers. We suppose the order a "military necessity." No other ordnance can be used to kill the enemy, whatever its "potency" than that which "Uncle Sam" prescribes—why should he not also establish what ordnance only may be used to deplete his own army? Certain kinds of knives only are provided the surgeons—there certainly ought to be an indignation meeting, and the Surgeon General called upon to resign at once because he does not furnish some other patterns. But we forget "the Surgeon General is only a Physiologist"—true, a most eminent one, but even this is "very tolerable and not to be endured." What business has he to know anything about Physiology—the very essence of his business, and still stay in the army, where a man notoriously has the best places for knowing nothing of his business? Poor Hammond! He *writes* his name instead of having a mark to himself like an honest plaindealing man! Away with him, and hang him and his Physiology together!

Duke. One of these men is Genius to the other;
And so of these; which is the natural man,
And which the Spirit? who deciphers them?

Dro. S. I, sir, am Dromio; command him away,

Dro. E. I, sir, am Dromio; 'pray let me stay.—*Comedy of Errors.*

It is stated that what was called the "Medical Department of Lind University" is hereafter also to be called the "*Chicago Medical College.*" What is in the wind with the Reform School? It is not the first time that we have heard of the convenience of an *alias*.

DeLaskie Miller, M. D., Prof. of Obstetrics and Diseases of Women and Children in Rush Medical College is at present visiting Europe with the object of adding to the interest of his department such means of illustration and practical improvements as may be commended to his judgement on personal observation of the scientific treasures of the old world.

We scarcely think it will be deemed against the dictates of the most delicate sense of propriety to say of Prof. Miller, in his absence, that although not beyond the middle period of life, he has already attained, not only the reputation but, the fact of thorough and extensive professional scholarship which has been corrected and invigorated by a range of practical experience in his department, at least, second to no other in this great city. Quick perceptions, a ready and retentive memory, ease and fluency in speaking, with the most conscientious anxiety to impress what he believes to be scientific truth upon the minds of students, render him deservedly a favorite of the medical classes, whilst his amiable, unassuming and gentlemanly demeanour, combined with remarkable practical tact, have commanded the most implicit confidence and personal regard of his numerous patients. Young, enthusiastic and devoted to his profession, we predict for him a career which will well repay his energy and assiduous industry. We hope

to greet him on his return in September next, renewed in health and richly laden with professional good things which he will have "annexed" in his transatlantic tour.

University of Michigan. It is known to many of our readers that for a number of years past, there has been a constant effort on the part of the Homoeopaths to foist a chair of their absurdity upon the Medical Department of the University of Michigan. Although repeatedly defeated before the Board of Regents, they have been constantly stimulated in other attempts by the presence in the presidential chair of a zealous adherent to their doctrines. This person had infested the position from the time of his transfer from the charge of a seminary for young ladies in Bleecker St., New York City, some ten years since, until June the present year.

At the time of his accession to the presidency, a position secured wholly by fraudulent practice upon a previous appointee, the income of the University was only some ten or eleven thousand dollars a year, but, in consequence of the rapid sale of the University lands, a few years later it was enhanced to some forty or fifty thousand. This vast amount so increased the facilities of the institution, that it could not escape growth in numbers—and this growth the President and his friends adroitly attributed to him, whilst it was really in spite of him. Nevertheless it kept him in the place an unexpected length of time. Arrogant, pompous, supercilious, overbearing and insolent, he long since disgusted all sensible people in Michigan, but managed to retain position from fear on all sides that the University could not stand another shock in its appointments. Such creatures always have a still lower grade of animals who toadey them. With just learning enough to amaze the groundlings, and just skill enough to plagiarize without discovery by the most casual readers, he has strutted and fumed a whole decade upon the Ann Arbor stage. Following out a precedent which he had himself init-

iated and established, the Board of Regents, with no prefatory self-exculpation, commended the chalice which he had long since poisoned, to his own lips, and he lies now upon the University boards, just back of the footlights, a mere carcase, beyond relief even from the infinitesimals of his cherished medical advisers.

We congratulate the Board of Regents upon this truly righteous step, demanded not only by the interests of the institution committed to their charge, but by common justice and the fitness of things.

And you, HENRY P. TAPPAN, D. D., "*Chancellor*," as you loved to call yourself, you thought that old "assassination did trammel up the consequence!" Apostle of little things—capable of the least of things—what is your present belief of Star Chamber justice?

☞ One is dead—*de mortuis nil &c. &c.* H. P. T., D. D., &c., "packing up his books" returns crestfallen to Bleecker St. ! And now only D——s remains !

"The mills of the Gods grind slowly,
But they grind exceeding small!"

"*Botanic*" *Druggists*. A correspondent calls our attention to the fact that we have among us divers apothecaries committed to the "eclectic" *alias* Thomsonian persuasion. Several notable instances have come to his knowledge, wherein the influence of these gentry has been employed to disparage the prescriptions of physicians who have unthinkingly sent patients to their shops. Our correspondent urges that it is as derogatory, to the interests and respectability of the profession, to patronize such establishments, as to consult with the quacks who are their especial pets. He directs the attention of the physician to the fact either that his prescription will not be honestly compounded, or that his patient will be practiced upon to the detriment of his confidence.

One concern in this city is especially alluded to, where the proprietor, already too much patronized by physicians, never-

theless boldly avows that he depends upon, and in turn recommends irregulars alone. To make this case still worse he says this identical individual was, but a short time since, kicked out from a respectable drug store in this city for rampant traitorous talk. Our correspondent urges that all physicians, here and elsewhere, serve him and his congeners and their wares *likewise*.

It is well to remember the scripture: Have nothing to do with the unfruitful works of the ungodly but rather reprove them. A man can not meddle with pitch without being defiled.

A Theoretical and Practical Treatise on Midwifery. Including the Diseases of Pregnancy and Parturition, and the attentions required by the child from Birth to the Period of Weaning. By P. CAZEAUX, member of the Imperial Academy of Medicine; Adjunct Prof. in the Faculty of Med. of Paris, etc., etc., adopted by the Superior Council of Public Instruction, and placed by ministerial decision in the rank of the classical works designed for the use of midwife students in the Maternity Hospital of Paris. *Third American*, Translated from the Sixth French Edition, by WILLIAM R. BULLOCK, M. D. One hundred and forty illustrations. Pp. 971, Philadelphia, Lindsay & Blakiston, 1863. [Price, \$4.50.]

This magnificent work is too well known to the majority of our readers to require extended comment. As the title page denotes it is a book of classical standing and authority in France, and it must rank among the first in any language.

The author's opportunities for testing the principles of treatment, and the correctness of the doctrines put forth by other writers, have been unsurpassed, and he has brought to the touchstone of his daily experience everything which he here lays down as truth. Whilst admitting that he has collected from every source, whatever seemed to him to bear the impress of truth, he has shaped the material thus brought together into clear and simple forms.

The great popularity of the completed work both at home

and abroad is a sufficient guarantee of the skill and learning exhibited in performance of the task.

In the present edition the author besides various other additions, alterations and corrections, has introduced "an article on the important subject of Tuning by external manipulation."

En passant—we remark that we have seen at least one case that convinces us, that this point is worthy of something better than the ridicule which some parties labor to cast upon it.

The typographical execution of this edition is of the highest artistic excellence.

Clinical Lectures on the Diseases of Women and Children. By Gunning S. Bedford A. M., M. D. Prof. Obstetrics &c., Univ. of N. Y., &c., &c. *Eighth* edition, New York; Wm. Wood & Co., 1863. [Price, \$2.00.]

The repeated notices we have given this work render it unnecessary to do more than simply to announce a new edition. Prof. Bedford owes it both to the profession and himself to put forth a systematic treatise on the subjects forming the title of these detached clinical lectures.

The Medical Students Vade-Mecum. A compendium of Anatomy, Physiology, Chemistry, Poisons, Materia Medica, Pharmacy, Surgery, Obstetrics, Practice of Medicine, Diseases of the Skin, &c., &c. By GEORGE MENDENHALL, M. D., Prof. of Obstetrics and Diseases of Women and Children in the Medical College of Ohio, Member of the Am. Med. Ass., &c., &c., Seventh edition, revised and enlarged with two hundred and twenty-four illustrations. Philadelphia: Lindsay & Blakiston, 1863. [Price, \$2.00.]

Another edition of a work which is well worthy of the success it has achieved. One of the Baconian works wherein "knowledge is digested to aphorisms;" a work not tending, as some appear to think, to superficiality but giving solidity to the whole structure of knowledge.

These things should be known, although not these only. These things should be done—others not left undone. We

approve the syllabus and the epitome—none the less the elaborate treatise and cyclopædia.

A Manual of Minor Surgery. By JOHN H. PACKARD, M. D., Demonstrator of Anatomy in the University of Pennsylvania, &c., &c. With 145 Illustrations. Authorized and adopted by the Surgeon-General of the U. S. A. for the use of Surgeons in the Field and General Hospitals. Philadelphia: J. B. Lippincott & Co. 1863. pp. 288.

This work is well adapted for the use for which it was designed, and also for civil practice. Its methods and descriptions are simple, clear and methodical—well brought up to the present time.

Clinical Lectures on Diseases of Women. By J. Y. Simpson, M. D., F. R. S. E., Prof. of Midwifery in the Univ. of Edinburgh, etc., etc. Illustrated with 102 engravings on wood. *Quae prosunt omnibus.* Philadelphia: Blanchard & Lea. 1863. Pp. 510.

Thirty-eight of Prof. Simpson's Clinical Lectures are here collected and issued in permanent form. Two lectures upon Vesico Vaginal Fistula; three upon Cancer of the Uterus; one upon carcinoma of the Uterus and Mamma; two upon Dysmenorrhœa; three upon various forms of disease of the Vulva and Vagina; three upon Surgical Fever; two upon Phlegmasia Dolens; one upon coccydynia and Dis. and Deform of the coccyx; two Pelvic Cellulitis; one Pelvic Haematomata and Varix; two spurious Pregnancy; six upon Ovarian Dropsy; two upon Ovariectomy; one Cranioclastm, &c.; one Dropsy of Fallopian Tubes; two Puerperal Mania; one Sub-Involution of the Uterus; one Super-Involution of the Uterus and Amenorrhœa, and two lectures on Amenorrhœa conclude the series.

The profound acquirements, sound judgment and genius of the Edinburgh Professor which have given him the position of perhaps the first obstetrician of the age, are well illustrated in this work, and hence it is only needed to give the table of contents of his book to assure our readers of its great value.

The Action of Medicines in the System. "On the mode in which Therapeutic agents introduced into the stomach produce their peculiar effects on the animal economy." Being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal for MDCCCLII. By FREDERICK WILLIAM HEADLAND, M. D., B. A., F. L. S., Licentiate of the Royal College of Physicians, etc., etc. Fourth American edition. Philadelphia: Lindsay & Blakiston. 1863. Pp. 448.

This is a standard essay and should be read by every one who ventures to prescribe medicines. There is no other so clear an exposition of the subject in print.

A Practical Treatise on Fractures and Dislocations. By FRANK HASTINGS HAMILTON, A. B., A. M., M. D., Lt. Col.; Medical Inspector U. S. A.; Prof. of Military Surgery and Hygiene, and of Fractures and Dislocations in Bellevue Hospital Med. Coll.; one of the Surgeons to Bellevue Hospital, N. Y.; Prof. of Military Surgery, etc., in the Long Island College Hospital, Brooklyn; Author of a Treatise on Military Surgery. *Second Edition*, Revised and Improved. Illustrated with 285 wood-cuts. *Quae Prosunt Omnibus.* Philadelphia: Blanchard & Lea. 1863. Pp. 751.

In the Preface to this edition Prof. Hamilton remarks: "By a careful revision I have sought to render this edition, as far as possible, a faithful record of the progress of that branch of surgical science of which it treats. With this view some portions have been amended, some paragraphs have been excluded, and considerable additions have been made. The short chapter on "Gun Shot Fractures seemed to be demanded at this moment, and especially as the work has been placed upon the United States Army Supply Table for Post and General Hospitals."

This, as is universally conceded, is the most complete and valuable work on the subject extant. The first edition having been fully noticed in the Journal we have only to say that the present has been very considerably improved by the retouching and additions given it by the author. As it now

stands, it is invaluable to the surgeon, whether in military or civil life.

A Practical Handbook of Medical Chemistry. By JOHN E. BOWMAN, F. C. S., Formerly Prof. of Practical chemistry in King's College, London. Edited by CHARLES L. BLOXAM, Prof. of Practical Chemistry in King's College, London. *Third American from the Fourth and Revised London edition.* With Illustrations. Blanchard & Lea. 1863. Pp. 351.

In the present edition all the recent advances in medical chemistry have been introduced so far as practicable, still preserving the character of the Hand Book. Among the additions may be mentioned, the quantitative determination of Ammonia and Kreatinine in the Urine, and the application of the volumetric principle to the analysis of the urine. Brief practical directions for examination of the solid excrements, of bile, liquids of muscular flesh, &c. General methods of determining the presence of poisons in organic mixtures. The electrolytic method. Concluding with directions for the application of the elegant process of dialysis introduced by Prof. Graham, to the separation of poisons from organic mixtures.

We are gratified that the enterprising publishers have given us this new edition of this invaluable little work. Every practitioner should have one before him, before he engages in organic medical analysis, and particularly before he ventures upon the witness stand before the very inquisitive gentlemen of the bar.

A Practical Treatise on Dental Medicine. Being a compendium of medical science, as connected with the study of Dental Surgery. By THOS. E. BOND, A. M., M. D., Professor of Special Pathology and Therapeutics in the Baltimore College of Dental Surgery. Third Edition, Revised, Corrected and Enlarged. Philadelphia: Lindsay & Blakiston. 1863. Pp. 411. [\$3.00.]

Time has not permitted us to give more than a cursory glance at the contents of this book, but so far as we can judge

it is well adapted to the object proposed, namely, the communication to Dentists of such professional information of a general character as more immediately bears upon their speciality. We can safely commend the book, already having achieved the success of a third edition, to our friends of the dental fraternity, and at the same time suggest that it contains matter deserving the attention of the general practitioner.

Fibrinous Coagula in the Heart. The fibrinous coagula occasionally found in the cavities of the heart, and which have long been considered by the greater number of authorities as merely formed *in articulo mortis*, have latterly—since the scientific investigations with reference to Thrombi and Emboli have thrown so much light on a previously obscure branch of pathology—attracted much attention from pathologists.

At a recent meeting of the London Pathological Society, Dr. Ogle exhibited eight preparations “illustrating the spontaneous formation of fibrinous coagula, at a long period before death, in the cavities of the heart, most of which had undergone considerable softening, and some of which were quite fluid in their centre. In several of these specimens the central puriform fluid was bounded by a firm smoothish surface, reminding one of the wall of an abscess, and welled out on section of the clot being made. The firm character of these coagula, their color, their adherence to the walls of the heart, and the changes which had taken place or were taking place within them, marked conclusively that the formation of the coagula had occurred sometime, possibly some weeks, before death. Out of the eight cases, this old standing and degenerating coagulum was found in the right auricle in five cases, in the right ventricle in three cases, and in the left ventricle in one case only. In almost all instances the cases had been such as included retardation of the blood's circulation through the lungs, and mostly a long and lingering death; the patients also being chiefly subjects of ill-health or intemperance.”

Dr. Ogle thought pyaemia might be produced by bursting of a concretion. No special phenomena had marked the formation; a term of months might have elapsed he believed in some cases. Dr. Ogle also related some cases of embolism of both middle cerebral arteries, and of the coronary arteries.

We have frequently observed these fibrinous concretions in the cavities of the heart, and in at least one instance seen distinct vascularity of the new formation entitling it to the denomination of polypus.

Our friend Dr. J. P. Lynn exhibited to us, a few days since, a well marked specimen evidently formed long anterior to the death of a well known resident of this city.

With regard to the causes, it is evident that all that is requisite is first a nidus upon which the clot may form, then an excess of the fibrin of the blood, and lastly, but perhaps most important of all, such a degree of retardation of the velocity of the circulation as may favor deposit upon the roughened surface of the excess of fibrin present.

The physiological principles involved are well understood, and have been taken advantage of, again and again, in the cure of aneurism and stoppage of haemorrhage by position, and mechanical and medical appliances.

Propositions to which we wish now to call attention are simply and briefly these: *The increased frequency of the heart's contraction in inflammatory and febrile affections has the physiological object of preventing the formation of coagula in its cavities. Rash interference with this prophylactic effort of nature, by agents which notably retard the heart's action, directly favors formation of these coagula and their subsequent dangers.*

He who boasts that with Veratrum Viride, or Tartar Emetic, or other sedative, he has reduced the pulsation from a hundred or more, below the normal standard, by no means convinces me that, unwillingly perhaps, he is not responsible for the sudden, or it may be slow and lingering, death which ensues. In this respect, it must be confessed, Tartar Emetic is immensely superior to its proposed substitutes, because it contemporaneously with its action upon the heart, defibrinates the blood.

Purulent Sinuses of the Mamma Cured by Rest. The powerful curative agency of rest is well illustrated in a case of deep purulent sinuses in the left mamma of five months standing treated by MR. URE in St. Mary's Hospital, London. The breast was perforated in several places by the sinuses which could be traced under the gland, and from which there was a discharge of sero-purulent matter. It felt hard, somewhat fuller than the other, and was the seat of occasional throbbing pain. The difficulty was attributed to a blow on the part. Patient in a state of nervous trepidation from the

idea of its cancerous nature. MR. URE directed the left arm to be kept steadily bandaged close to the side, with the forearm brought across the chest; the breast itself being simply covered with a piece of lint to absorb the discharge. Without other treatment the cure was complete in ten days. The principle involved is well worth application to other cases now generally treated by laying open the sinuses, or by the use of injections with uncertain result.

Mercury in Syphilis. Mercury still retains its pre-eminence in the estimation of most English surgeons in the treatment of syphilis. In a recent discussion of the subject in the Royal Med. Chirurg. Society, Dr. O'Connor laid down the proposition categorically "that what was good in the treatment of syphilis, was mercury, and what was not good was not mercury; when to use and when to discontinue it was the great desideratum in the treatment of syphilis. The insoluble preparations of mercury he believed to be the most efficient, used externally by inunction, internally, or in the form of suppositories. Iodide of Potassium he believed to be valueless as an antisiphilitic remedy, but much benefit was derived from its use after a proper mercurial treatment, in promoting the elimination from the tissues of the insoluble preparations of mercury already partially acted on by the juices of the body. Besides Iodide of Potassium was a prophylactic to tertiary symptoms."

Mr. Folly and others urged that the greater prevalence of secondary affections at the present time, was the legitimate fruit of the non-mercurial doctrines in vogue.

Uses of Glycerin. E. J. TILT, M. D. of the Farmington General Dispensary considers that Glycerin has Antiseptic properties inasmuch as it speedily gives a healthy appearance to foul, unhealthy, and even pultaceous-looking sores. It is better adapted for liniments than oil being more elegant and cleanly. Although it will not dissolve ordinary fatty matters it readily dissolves the sebaceous product of the skin, and thereby facilitates cutaneous absorption. "Its stability, cleanliness, innocuousness and antiseptic properties make it a valuable ingredient for all the variety of lotions which are applied to the inflamed or to the unhealthy mucus membranes of the mouth, eyes, nose, ears, rectum and vagina.

Starch, eighty grains, boiled in an ounce of glycerine yields

a moderately stiff, tenacious plasma well adapted for all the uses of simple ointment, not becoming rancid, inodorous, not soiling the clothing and readily removable by means of a damp towel. Boiling from 100 to 150 grs. of starch to the ounce of Glycerine gives a very firm and tenacious compound well suited as a basis for medicated plasters, readily holding in solution or suspension all the ordinary ingredients of the plasters now in use.

As illustrative of the uses of the ointment Dr. Tilt gives the following formula which he frequently prescribes in the spinal and pelvic pains attendant on uterine inflammation :

℞ Sulphate of atropia, gr. ij; Glycerine, 3 ss; Oil of Neroli, gtt. iv; Glycerine Ointment ℥j. M. A portion of this ointment about the size of a hickory nut to be well rubbed in night and morning. ℞ Acet. Morph., gr. x; Otto of Roses, gtt. j; Glycerine 3 ss; Glycer. Oint. ℥j. M.

Instead of a Belladonna plaster he uses: ℞ Sulph. Atropia, gr. iv; Otto of Roses gtt. j; Hard Glycerine Oint., ℥j. Rub the salt, with a few drops of the Glycerine, and then incorporate all with the ointment. For a compound sedative plaster: ℞ Sulph. Atropia, gr. iij; Veratrinae gr. iij; Sulph. Morphia gr. viij; Otto of Roses gtt. j; Hard Glycerine Oint ℥j. M.

Removal of the Uterus and Ovaries. Dr. CHARLES CLAY, of Manchester, England, reports to the London Obstetrical Society "the entire extirpation of the uterus and its ovaries through the abdominal walls, which has ended most fortunately, the lady returning to her friends on the thirty-fifth day after the operation, and still continuing well, thus establishing another great fact in abdominal surgery. The case was that of a fibroid uterus of eleven pounds weight, with the ovaries in an unhealthy condition, and the tumor by its growth had latterly so filled up the cavity of the pelvis as to render the passage of the fæces and urine difficult. Dr. C. does not suppose that many uterine cases could be advisedly extirpated, but thinks some of those densely hard fibroid masses, where the constitution has not been greatly prostrated, might afford a fair prospect of cure under the knife.

Fourth and Fifth Annual Report of the CHICAGO CHARITABLE EYE AND EAR INFIRMARY, For the year ending May 1, 1862, and the year ending May 1, 1863. Presented by the Board of Surgeons.

The officers of this Charity number some of the leading

citizens of Chicago, and it has been in successful operation nearly continuously from its origination.

TRUSTEES.—Walter L. Newberry, President; William H. Brown; Charles V. Dyer, Luther Haven, Vice Presidents; Ezra B. McCagg, Treasurer; Wm. Barry; Flavel Moseley; Samuel Stone, Secretary; Dr. John Evans; Cyrus Bentley; John H. Kinzie; Philo Carpenter.

E. L. Holmes, M. D., and E. Powell are Attending Surgeons. Prof. D. Brainard M. D., and Prof. J. W. Freer, M. D., Consulting Surgeons.

During the year ending May 1, 1862, *three hundred and ninety-seven* patients, and during the year ending May 1, 1863, *two hundred and forty-seven* patients were under treatment, making an aggregate of *one thousand two hundred and twenty-four* that have been treated since the opening of the Infirmary in 1858.

The following is a classified list of the forms of disease which have been under treatment during the past two years:

DISEASES OF THE EYE.—Wounds and Injuries 34, Conjunctivitis, simple 43, Conjunctivitis, granular 144, Conjunctivitis, neonatorum 24, Conjunctivitis, scrofulous 46, Conjunctivitis, purulent 16, Ulcer of Cornea 17, Opacity of Cornea 18, Staphylooma of Cornea 14, Foreign Bodies on Cornea 7, Abscess of Upper Lid 6, Iritis 15, Occlusion of Pupil 9, Amaurosis 15, Cystic Tumors of Lids 6, Obstruction of Nasal Duct 13, Trichiasis 18, Inflammation of Lids 17, Strabismus 3, Cataract 12, Entropion 12, Extropion 9, Asthenopœa 13, Pterygium 6, Hydrophthalmos 3, Obliteration of Lachrymal Canals 2; Total 522.

DISEASES OF THE EAR.—Foreign Bodies in Ext. Meatus 8, Otorrhœa 26, Polypus 4, Tinnitus 3, Perforation Membrana Tympani 9, Impacted Cerumen 8, Thickening Membrana Tympani 9, Inflammation of Membrana Tympani 18, Unclassified 37; Total 122.

Of the aggregate number treated, viz., 644, *four hundred and fifty-one* were natives of foreign countries and *one hundred and ninety-three* of the United States.

The Surgeons report an increasing interest in the Charity on the part of the benevolent, and congratulate the Trustees on the warm support received from the profession in the Northwest. They remark upon the importance of early attention to diseases of the eye, and the fact that the poor, through fear of the attendant expense, too often neglect procuring proper advice until blindness with its painful incidents results. A large proportionate number of the patients have been children, who without the relief thus afforded, would have been incapacitated for procuring a livelihood or even the rudiments of knowledge. The Report urges strongly and forcibly the establishment of a permanent Infirmary building, such as is to be found in several of the eastern cities. We understand that there are good grounds for believing that the friends of the Institution will soon comply with this appeal to their liberality.

The Dispensary of the Infirmary in Ewing's Block, corner of North Clark and North Water Sts. is open daily, from 11½ to 12½ o'clock, for the gratuitous treatment of the poor, afflicted with diseases of the Eye and Ear.



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They are the FAVORITES FOR FAMILIES.—*New York Times.*

It has NO RIVAL.—*Scientific American.*

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